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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/674,444	10/31/2000	Symon Reuben Brewer	20251-000100	9030

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EXAMINER

VARTANIAN, HARRY

ART UNIT PAPER NUMBER

2634

DATE MAILED: 08/04/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/674,444

Applicant(s)

BREWER, SYMON REUBEN

Examiner

Harry Vartanian

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-12 and 15-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-12, 15-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. <u>10</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6</u> . | 6) <input type="checkbox"/> Other: ____. |

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Detailed Action

Claims 1-3, 5-12, 15-23 are pending in this case.

Drawings

1. The drawings filed on 10/31/2000 are acceptable subject to correction of the following informalities: there are blocks in figures 4-7 that are cutoff during scanning, because of improper margins. 37 CFR § 1.84 (g) states:

(g) Margins . The sheets must not contain frames around the sight (i.e., the usable surface), but should have scan target points (i.e., cross-hairs) printed on two cater-corner margin corners. Each sheet must include a top margin of at least 2.5 cm. (1 inch), a left side margin of at least 2.5 cm. (1 inch), a right side margin of at least 1.5 cm. (5/8 inch), and a bottom margin of at least 1.0 cm. (3/8 inch), thereby leaving a sight no greater than 17.0 cm. by 26.2 cm. on 21.0 cm. by 29.7 cm. (DIN size A4) drawing sheets, and a sight no greater than 17.6 cm. by 24.4 cm. (6 15/16 by 9 5/8 inches) on 21.6 cm. by 27.9 cm. (8 1/2 by 11 inch) drawing sheets.

In order to avoid abandonment of this application, correction is required in reply to the Office action. The correction will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 5, 7-9, 10-11, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Shohet(United States Patent# 4,975,634). Regarding Claim 1, Shohet meets the following limitations of the Claim:

forming an offset reference clock signal being offset by a predetermined frequency amount from said digital signal; (**column 4, lines 50-65), fig 1, fig 2**

sampling said digital signal at sampling times determined by an integer multiple of the frequency of said offset reference clock signal, such that, in the absence of jitter and said offset

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by a predetermined frequency, there are a predetermined number of sampling times in each bit of said digital signal; **(column 4, lines 50-65), fig 1, fig 2**

detecting occasions when the number of sampling times in any bit of said digital signal is different from said predetermined number; **Abstract**

counting said occasions over a predetermined time, and **fig 1, Abstract**

deriving at least one measure of jitter from said counting of said occasions. **(Column 3, Lines 50-54)**

Regarding Claim 2, Shohet meets the following limitations of the Claim:

wherein said offset reference clock signal is formed by extracting a clock signal from said digital signal and offsetting said clock signal by said predetermined frequency. **(Column 1, lines 39-44)**

Regarding Claim 5, Shohet meets the following limitations of the Claim:

wherein said sampling the times are at clock bit intervals being plus and minus one of said integer multiple. **Fig 2**

Regarding Claim 7, Shohet meets the following limitations of the Claim:

wherein one of said at least one measure of jitter is obtained by counting up one value for each of said occasions representing sampling times greater than the predetermined number within a bit, counting down one value for each of said occasions representing sampling times less than the predetermined number within a bit and determining the difference between the maximum count value and the minimum count value. **Abstract; (Column 3, lines 56-60)**

Regarding Claim 8, Shohet meets the following limitations of the Claim:

wherein one of said at least one measure of jitter is obtained by counting up one value for each of said occasions representing sampling times greater than the predetermined number within a bit, counting down one value for each of said occasions representing sampling times less than the predetermined number within a bit and determining the time difference between the first occasion of the maximum count value and the last occasion of the minimum count value. **Abstract; (Column 3, lines 56-60)**

Regarding Claim 9, Shohet meets the following limitations of the Claim:

wherein the time difference is divided by said integer multiple and said predetermined time. **fig 2; fig 1, item 22, 24; (Column 4, Lines 11-12)**

Regarding Claims 10-11, and 16 the rejections for the Claims above meet the limitations of the Claims.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 6, 15, 17, 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shohet. Shohet meets all the limitations of Claims 6 and 15(see above paragraphs) except disclosing the method of determining a sampling period disclosed in Claims 6 and in the last limitation of Claim 15. However, using the inverse proportion of the bit rate and higher frequency offset is a design choice and simply represents using the original clock frequency(bit rate) and some offset.

Regarding Claims 17 and 19-23, the 102 rejections for the Claims above meet the limitations of the Claims.

4. Claims 3, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shohet in view of Yoshimura et al(United States Patent 6,100,724). Shohet meets all the limitations of Claims 3, 12, and 18(see above paragraphs) except disclosing the smoothing of the reference clock.

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However, Yoshimura discloses:

"a phase comparator 5 for calculating a phase difference by using sampled values before and after an edge portion of the signals outputted from the A/D converter 4, a filter 6 for smoothing the phase difference outputted from the phase comparator 5 so as to output a signal converted into a direct current, a variable frequency oscillator 7 for reproducing a synchronous clock on the basis of the signal outputted from the filter 6, a jitter measuring section 9 for detecting a jitter detection signal on the basis of unevenness of the phase difference obtained by the phase comparator 5..."(Column 3, Lines 12-24)

Therefor is would have been prima facie obvious to smooth the reference clock. The motivation to combine is that it is well known in the art that smoothing a clock can result in more accurate phase measurements, therefor improving the jitter measurement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry Vartanian whose telephone number is 703.305.8698. The examiner can normally be reached on 10:00-6:30 Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703.305.4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Harry Vartanian
Examiner
Art Unit 2634

HV


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